

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION  
(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
 United States Patent and Trademark  
 Office  
 Box PCT  
 Washington, D.C.20231  
 ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 21 October 1999 (21.10.99)	To:  Assistant Commissioner for Patents United States Patent and Trademark Office Box PCT Washington, D.C.20231 ÉTATS-UNIS D'AMÉRIQUE
International application No. PCT/US99/03030	Applicant's or agent's file reference 08326/046WO1
International filing date (day/month/year) 11 February 1999 (11.02.99)	Priority date (day/month/year) 11 February 1998 (11.02.98)
Applicant  CHANCE, Britton	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:  
08 September 1999 (08.09.99)

in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  F. Baechler
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

M.H  
PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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REC'D	07 FEB 2000
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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 08326/046WO1	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/03030	International filing date (day/month/year) 11 FEBRUARY 1999	Priority date (day/month/year) 11 FEBRUARY 1998
International Patent Classification (IPC) or national classification and IPC IPC(6): A61B 5/00; and US Cl.: 600/310, 323, 324, 328, 340, 475, 477, 479		
Applicant NON-INVASIVE TECHNOLOGY, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 08 SEPTEMBER 1999	Date of completion of this report 03 NOVEMBER 1999
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer <i>Ruth Smith</i> RUTH SMITH
Facsimile No. (703) 305-3230	Telephone No. (703) 308-3063

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/03030

**I. Basis of the report**

1. This report has been drawn on the basis of (*Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments*):

 the international application as originally filed. the description, pages 1-39, as originally filed.pages NONE, filed with the demand.pages NONE, filed with the letter of \_\_\_\_\_.pages       , filed with the letter of \_\_\_\_\_. the claims, Nos. 1-35, as originally filed.Nos. NONE, as amended under Article 19.Nos. NONE, filed with the demand.Nos. NONE, filed with the letter of \_\_\_\_\_.Nos.       , filed with the letter of \_\_\_\_\_. the drawings, sheets/fig 1-22, as originally filed.sheets/fig NONE, filed with the demand.sheets/fig NONE, filed with the letter of \_\_\_\_\_.sheets/fig       , filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

 the description, pages NONE. the claims, Nos. NONE. the drawings, sheets/fig NONE.

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The question whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:

the entire international application.

claims Nos. 10, 16

because:

the said international application, or the said claim Nos.   relate to the following subject matter which does not require international preliminary examination (*specify*).

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 10, 16 are so unclear that no meaningful opinion could be formed (*specify*).

Claims 10 and 16 are dependent claims that are not drafted in accordance with the second, and third sentences of Rule 6.4(a).

the claims, or said claims Nos.   are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for said claims Nos.  .

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/03030

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims 1-9, 11-15, 17-35	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 1-9, 11-15, 17-35	YES
	Claims NONE	NO
Industrial Applicability (IA)	Claims 1-9, 11-15, 17-35	YES
	Claims NONE	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-9, 11-15 and 17-35 meet the criteria set out in PCT Article 33(2)-(4) because the prior art does not teach or fairly suggest an optical system/method for in vivo non-invasive trans-cranial examination of brain tissue including an optical module for introducing light in the tissue, detecting photons of light that have migrated in the tissue, and a processor which forms at least two data sets from the detected signals that are correlated to detect the presence of abnormal tissue.

## ----- NEW CITATIONS -----

NONE

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/03030

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : A61B 5/00  
 US CL : 600/310, 323, 324, 328, 340, 475, 477, 479

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/310, 323, 324, 326, 328, 340, 473, 475-477, 479

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 5,853,370 A (CHANCE et al) 29 December 1998, entire document.	1-2, 6-9, 11-15, 17, 18, 29-35
Y,P		----- 3-9, 11-15, 17-34
Y,P	US 5,845,639 A (HOCHMAN et al) 08 December 1998, Abstract.	3-9, 11-15, 17, 18, 29-34
Y,P	US 5,807,263 A (CHANCE) 15 September 1998, entire document.	25-28

 Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

Date of mailing of the international search report

03 MAY 1999

20 MAY 1999

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231Authorized officer   
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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US99/03030

**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,564,417 A (CHANCE) 15 October 1996, col. 2 lines 44-67, col. 8 lines 50-67, and col. 9 lines 1-21.	19-24

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US99/03030

**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.: 10, 16 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**  

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.